

REMARKS

Claims 1-11, 21- 27 and 29-33 are pending in the application. Claim 1 is independent. Claims 31-33 are amended.

In the following remarks, references are made to certain numbered paragraphs and figures in the specification of the present patent application. These references relate to paragraphs and figures as numbered in the published version (Pub. No.: US 2007/0179606 A1) of patent application no. 10/564,518.

Independent claim 1 requires a prosthesis having a flexible portion and at least one less flexible portion. The flexible portion includes a fibre-reinforced hydrogel containing chopped fibres, and the fiber comprises charged groups. Furthermore, fibres are wound around and encompass the whole of the flexible portion and the less flexible portion to reinforce the prosthesis. Paragraph [0060] of the present patent application describes that the hydrogel of the prosthesis contains chopped fibres, and FIG. 5, for example, illustrates that fibres are wound around the prosthesis and encompass the prosthesis. Thus, claim 1 as amended is supported by the specification of the present application and no new matter has been added by amendments herein.

Specification Objections

The Specification is objected to as lacking headings for different sections. These informalities have been cured by amendment. Applicants respectfully request that this objection be withdrawn.

Rejections under 35 U.S.C. § 112

Claims 31-33 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. This rejection is respectfully traversed.

The limitation "said fibers" in claims 31-33 has been amended to recited "said fibers wound around the flexible portion." Applicants respectfully submit that the claim language is not ambiguous and respectfully request that the rejection be withdrawn.

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claim 1 stands rejected under 35 U.S.C. § 103 (a) as being unpatentable over several U.S. patents, namely the Oka (5,4589,643), Coury (7,008,635), Stubstad (3,867,728), Bao (5,047,055) and Stoy (6,264,695) patents. However, these references individually and together fail to render obvious a prosthesis having a flexible hydrogel portion containing chopped fibres, the hydrogel comprising charged groups, and having fibres wound around and encompassing the whole of the flexible portion and the less flexible portion. Thus, all of the claims now pending in the present application are patentable by way of the recited features of the independent claim 1, from which all of the other claims depend directly or indirectly.

In particular, the prosthesis of Oka does not contain a hydrogel which is ionized. Thus, the swelling properties of the gel disclosed by Oka are less than the swelling properties of the hydrogel according to claim 1. The presence of these groups allows for an easier implantation due to enhanced shrinking and swelling properties of the prosthesis compared to the prosthesis according to Oka.

Further due to these enhanced swelling properties, both the fibres wound around and the chopped fibres in the gel are preloaded due to swelling, allowing for the omission of a heavy aluminium mesh structure (as used by Oka). Hence Oka does not disclose a hydrogel having charged groups or the resultant swelling of the hydrogel and the associated preloading of fibres.

For at least these reasons, the rejection of claims 1 and all dependent claims should be withdrawn and the claims allowed.

CONCLUSION

Based on the above amendments and remarks, Applicant believes that the application is now in condition for allowance.

The Director is hereby authorized to charge any fees or any underpayments which may be required for the above-referenced application to Deposit Account No. 01-0265. Any overpayments should be refunded to Deposit Account No. 01-0265.

Respectfully submitted,

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